

Appl. No. 10/085,809
Attorney Docket No.: 1998B014E
Amdt. Dated November 27, 2006
Reply to Final Office Action of September 27, 2006

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REMARKS/ARGUMENTS

This reply is in response to the Final Office Action dated September 27, 2006. Claims 7-25 and 29 are pending in the application and stand rejected. Entry of the following remarks/arguments, and reconsideration of the claims, is respectfully requested. No new matter has been added nor new issues raised by this submission.

Claims 7-25 and 29 stand rejected under 35 U.S.C. § 103(a) as being obvious over International Publication No. WO 01/05842A1 to McElvain *et al.* (hereafter "McElvain") and International Publication No. WO 96/18662 to Palmroos (hereafter "Palmroos"). Applicant again respectfully traverses this rejection for the following reasons.

The Examiner admits that McElvain does not teach reconfiguring a loop reactor into two connected closed loop reactors. *See* Final Office Action at page 2. Yet, the Examiner states that Palmroos discloses multiple connected loop reactors each with an inlet and outlet to allow for optimization of reaction stages (*id.* at page 3), and then concludes

It is well within the skill of one of ordinary skill in the art to be able to connect and disconnect the various elements of the known loop reactor of McElvain *et al.* to form multiple connected loop reactors of Palmroos, and one would be motivated to do so in order to gain further control of various reaction stages and optimization of reaction stages.

See Id.

Applicant respectfully traverses the rejection on grounds that even a combination of McElvain and Palmroos does not teach, show, or suggest the claimed invention. McElvain discloses a single loop reactor having multiple legs. McElvain makes no mention of reconfiguring a loop reactor, nor suggests reconfiguring a loop reactor. Palmroos discloses a multi-stage polymerization process that polymerizes monomer in two different loop reactors prior to a third gas phase reactor (not a loop reactor). Like McElvain, Palmroos makes no mention of reconfiguring a loop reactor, nor suggests reconfiguring a loop reactor. At best, a combination of McElvain and Palmroos would suggest a staged polymerization process carried out in two reactors taught in McElvain in series, not reconfiguring the reactor disclosed in McElvain to form multiple loop reactors, as required in every claim.

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Therefore, a combination of the references does not teach, show, or suggest reconfiguring an existing loop reactor comprising at least eight vertical legs, at least two non-vertical conversion runs each in fluid flow communication with two vertical legs, disconnecting at least one connection of each conversion run, and reconnecting each conversion run in fluid flow communication with a different vertical leg in such a manner to form multiple loop reactors, as required in every claim. For at least this reason, withdrawal of the rejection and allowance of the claims is respectfully requested.

Since a combination of the references does not teach, show, or suggest the claimed invention, the only other explanation is that the Examiner is trying to modify the reactor of McElvain "based on the common knowledge of persons skilled in the art without relying on a specific suggestion in a particular reference" and cites to an outdated decision of the CCPA from 1969, *In re Bozek*, to provide support for such line of reasoning. See Final Office Action at page 3. The Examiner states, "Obviousness may sometimes be based on the common knowledge of persons skilled in the art without relying on a specific suggestion in a particular reference." See *Id.*

Applicant, and the M.P.E.P., disagree. See, e.g., M.P.E.P. § 2143.01. The M.P.E.P. and the case law is replete with recent case law decisions that require the Examiner to identify a particular teaching from the reference itself to arrive at the claimed invention or provide objective evidence that the claimed invention is obvious. The Examiner may not simply allege "common knowledge" or "common sense" in the absence of evidence. *In re Lee*, 277 F.3d 1338, 1343-46 (Fed. Cir. 2002). In *In re Lee*, The Federal Circuit specifically addressed *In re Bozek* and stated "Bozek did not hold that common knowledge and common sense are a substitute for evidence, but only that they may be applied to analysis of the evidence." *Id.* Therefore, we know from *In re Lee* that the Examiner's statement of "obviousness" on page 3 of the Final Office Action (*see infra*) does not represent the current state of the law and is insufficient to establish obviousness.

Indeed, to the extent that the Examiner is relying on "common knowledge", Applicant respectfully submits that, before applying such "common knowledge" to the claims or combining it with the cited prior art, the Examiner is required to make such "common knowledge" officially

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of record, e.g., by taking official notice or providing other documentary evidence of the alleged "common knowledge." See, e.g., M.P.E.P. § 2144.03.

Furthermore, the Examiner's attention is respectfully directed to the M.P.E.P. § 2143. According to MPEP 2143.01, paragraph I, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." *In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also *In re Lee*, 277 F.3d 1338, 1342-44, 61 USPQ2d 1430, 1433-34 (Fed. Cir. 2002) (discussing the importance of relying on objective evidence and making specific factual findings with respect to the motivation to combine references); *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). As stated above, neither McElvain nor Palmroos make any mention or suggestion with regard to reconfiguring existing loop reactors to form multiple loop reactors, as required in every claim.

Furthermore, according to M.P.E.P. § 2143.01, paragraph IV, a statement that modifications of the prior art to meet the claimed invention would have been "well within the ordinary skill of the art at the time the claimed invention was made" (emphasis added) because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. M.P.E.P. § 2143.01, paragraph IV, citing *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). See also *In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1318 (Fed. Cir. 2000) (Court reversed obviousness rejection involving technologically simple concept because there was no finding as to the principle or specific understanding within the knowledge of a skilled artisan that would have motivated the skilled artisan to make the claimed invention); *Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999) (The level of skill in the art cannot be relied upon to provide the suggestion to combine or modify references.). Finally, the mere fact that references can be

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modified does not render the resultant modification obvious unless the prior art suggests the desirability of the modification. *See In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

The prior art of record makes no mention of reconfiguring existing loop reactors to form multiple loop reactors, as required in every claim. As such, all aspects of the claimed invention are not individually known in the art, because neither McElvain nor Palmroos make any mention or suggestion with regard to reconfiguring existing loop reactors to form multiple loop reactors. Applicant respectfully submits that, at best, a combination of McElvain and Palmroos would suggest a staged polymerization process carried out in two reactors taught in McElvain in series, not reconfiguring the reactor disclosed in McElvain to form multiple loop reactors, as required in every claim.

To the extent that the Examiner is aware of prior art remedying this deficiency repeatedly pointed out by the Applicant, the Examiner is invited to make this prior art of record, so that Applicant may appropriately provide a rebuttal thereto. Applicant's position is that the Examiner's conclusory statements (which were rebutted by Applicant) and the Examiner's failure to cite prior art of record (or to take Official Notice) does not properly shift any burden to Applicant.

Therefore, a combination of the references does not teach, show, or suggest reconfiguring an existing loop reactor comprising at least eight vertical legs, at least two non-vertical conversion runs each in fluid flow communication with two vertical legs, disconnecting at least one connection of each conversion run, and reconnecting each conversion run in fluid flow communication with a different vertical leg in such a manner to form multiple loop reactors, as required in every claim. For at least the reasons stated above, the Examiner's rejection is improper, and withdrawal of the rejection is respectfully requested.

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CONCLUSION


Having addressed all issues set out in the office action, Applicant respectfully submits that the pending claims are now in condition for allowance. Applicant invites the Examiner to telephone the undersigned attorney if there are any issues outstanding which have not been addressed to the Examiner's satisfaction.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response. Please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1712 (Docket #: 1998B014E).

Respectfully submitted,

Date

11/27/06


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